

(FILE 'HOME' ENTERED AT 08:25:11 ON 30 DEC 1999)

FILE 'USPATFULL' ENTERED AT 08:25:19 ON 30 DEC 1999

L1 116005 S REDUC? (P) DATA  
L3 5446 S CLIENT# AND SERVER#  
L4 119110 S WEB OR INTERNET  
L5 1859 S L1 (P) L3  
L6 784 S L5 (P) L4  
L7 1179 S HTML OR HYPER TEXT MARKUP LANGUAGE  
L8 49483 S LOG  
L9 56 S L7 (P) L8  
L10 292 S L6 (P) L8  
L11 28 S L9 (P) L10  
L12 20 S DOWNLOAD? (P) L11

L12 ANSWER 1 OF 20 USPATFULL  
PI US 6002767 19991214  
TI System, method and article of manufacture for a modular gateway  
**server** architecture  
AB Secure transmission of data is provided between a plurality of computer systems over a public communication system, such as the **Internet**. Secure transmission of data is provided from a customer computer system to a merchant computer system, and for the further secure transmission of payment information regarding a payment instrument from the merchant computer system to a payment gateway computer system. The payment gateway system evaluates the payment information and returns a level of authorization of credit via a secure transmission to the merchant which is communicated to the customer by the merchant. The merchant can then determine whether to accept the payment instrument tendered or deny credit and require another payment instrument. An architecture that provides support for additional message types that

are value-added extensions to the SET protocol is provided by a preferred embodiment of the invention. A **server** communicating bidirectionally with a gateway is disclosed. The **server** communicates to the gateway over a first communication link, over which all service requests are initiated by the **server**. The gateway uses a second communication link to send service signals to the **server**. In response to the service signals, the **server** initiates transactions to the gateway or presents information on a display device.

L12 ANSWER 2 OF 20 USPATFULL  
PI US 5996076 19991130  
TI System, method and article of manufacture for secure digital certification of electronic commerce  
AB Secure transmission of data is provided between a plurality of computer systems over a public communication system, such as the **Internet**. Secure transmission of data is provided from a party in communication with a first application resident on a first computer which is in communication with a second computer with a certification authority application resident thereon. The second computer is in communication with a third computer utilizing an administrative function resident thereon. The first, second and third computers are connected by a network, such as the **Internet**. A name-value pair for certification processing is created on said first computer and transmitted to an administrative function on the third computer. Then, the name-value pair is routed to the appropriate certification authority on the second computer. The administrative function also transmits other certification information from said administrative function to said certification authority on the second computer. Until, finally, a certificate is created comprising the name-value pair and the other certification information on the second computer. The certificate is utilized for authenticating identity of the party.

L12 ANSWER 3 OF 20 USPATFULL  
PI US 5992752 19991130  
TI **Internet**-based system for enabling information-related transactions over the **internet** using Java-enabled **internet** terminals provided with bar code symbol readers for

reading Java-Apple's encoded bar code symbols

AB A novel transaction-enabling system is disclosed, wherein a transaction-enabling Java-Applet is embedded within 2-D bar code symbol.

An HTML-encoded document and code associated with the transaction-enabling Java-Applet is created and stored in an HTTP server for use in enabling a predetermined information-related transaction. When a bar code symbol encoded with a transaction-enabling Java-Applet is read using a bar code symbol reader interfaced with a Java-enabled Internet terminal, the corresponding code is automatically accessed and the HTML-encoded document is displayed at the terminal, and the transaction-enabling Java-Applet initiated for execution so that the customer, consumer or client desiring the transaction can simply and conveniently conduct the information-related transaction over the Internet.

L12 ANSWER 4 OF 20 USPATFULL

PI US 5987132 19991116

TI System, method and article of manufacture for conditionally accepting a payment method utilizing an extensible, flexible architecture

AB An architecture that provides a server that communicates bidirectionally with a gateway over a first communication link, over which service requests flow to the server for one or more merchants and/or consumers is disclosed. Service requests are associated with a particular merchant based on storefront visited by a consumer or credentials presented by a merchant. Service requests result in merchant specific transactions that are transmitted to the gateway for further processing on existing host applications. By presenting the appropriate credentials, the merchant could utilize any other computer attached to the Internet utilizing a SSL or SET protocol to query the vPOS system remotely and obtain capture information, payment administration information, inventory control information, audit information and process customer satisfaction information.

L12 ANSWER 5 OF 20 USPATFULL

PI US 5983208 19991109

TI System, method and article of manufacture for handling transaction results in a gateway payment architecture utilizing a multichannel, extensible, flexible architecture

AB Secure transmission of data is provided between a plurality of computer systems over a public communication system, such as the Internet. Secure transmission of data is provided from a customer computer system to a merchant computer system, and for the further secure transmission of payment information regarding a payment instrument from the merchant computer system to a payment gateway computer system. The payment gateway system evaluates the payment information and returns a level of authorization of credit via a secure transmission to the merchant which is communicated to the customer by the merchant. The merchant can then determine whether to accept the payment instrument tendered or deny credit and require another payment instrument. An architecture that provides support for additional message types that are not SET compliant is provided by a preferred embodiment of the invention. A server communicating bidirectionally with a gateway is disclosed. The server communicates to the gateway over a first communication link, over which all service requests are initiated by the server. The gateway uses a second communication link to send service signals to the server. In response to the service signals, the server initiates transactions to the gateway or presents information on an a display device.

L12 ANSWER 6 OF 20 USPATFULL

PI US 5978840 199911

TI System, method and article of manufacture for a payment gateway system architecture for processing encrypted payment transactions utilizing a multichannel, extensible, flexible architecture

AB Secure transmission of data is provided between a plurality of computer systems over a public communication system, such as the **Internet**. Secure transmission of data is provided from a customer computer system to a merchant computer system, and for the further secure transmission of payment information from the merchant computer system

to a payment gateway computer system. The payment gateway system receives encrypted payment requests from merchants, as HTTP POST messages via the

**Internet**. The gateway then unwraps and decrypts the requests, authenticates digital signatures of the requests based on certificates, supports transaction types and card types as required by a financial institution, and accepts concurrent VPOS transactions from each of the merchant **servers**. Then, the gateway converts transaction data to host-specific formats and forwards the mapped requests to the host processor using the existing financial network. The gateway

architecture

includes three distinct sections to enhance distribution of the functions. The upper API consists of concise functions which are available via a call out interface to custom modules. The lower API allows the gateway and the custom modules to call in to reusable functions which facilitate isolation from possible future fluctuations in structural definitions of SET data elements. The system

configuration

custom parameters include the more static information elements required for such things as the network address of the host or its proxy equipment, timeout values, expected length of certain messages and

other

system configuration information. These parameters are specified as name-value pairs in the gateway system initialization file.

L12 ANSWER 7 OF 20 USPATFULL

PI US 5943424 19990824

TI System, method and article of manufacture for processing a plurality of transactions from a single initiation point on a multichannel, extensible, flexible architecture

AB An architecture for processing a plurality of transactions from a single

point of initiation is disclosed. The initiating computer selects a terminal identification token, and associates the token with a transaction request, thereby ensuring the association of the

transaction

with a unique terminal identification despite being originated by the same terminal. The tokens are obtained from a token table, which contains a row for each token defined to the system. The table includes a column for the token, a column that identifies a system with which

the

token may be used, and a column that identifies a date and time field indicating when a particular token was selected for use. A null value

in

use.

A query operation selects a token with a null date-time value, and a

set

operation sets the date-time value to the then-current time to mark it in use. At the conclusion of the transaction, a set operation sets the date-time value to null, enabling the token to be reused for another non-concurrent transaction.

L12 ANSWER 8 OF 20 USPATFULL

PI US 5931917 19990803  
TI System, method and article of manufacture for a gateway system architecture with system administration information accessible from a browser  
AB Secure transmission of data is provided between a plurality of computer systems over a public communication system, such as the **Internet**. Secure transmission of data is provided from a customer computer system to a merchant computer system, and for the further secure transmission of payment information from the merchant computer system to a payment gateway computer system. The payment gateway system receives encrypted payment requests from merchants, as HTTP POST messages via the **Internet**. The gateway then unwraps and decrypts the requests, authenticates digital signatures of the requests based on certificates, supports transaction types and card types as required by a financial institution, and accepts concurrent VPOS transactions from each of the merchant **servers**. Then, the gateway converts transaction data to host-specific formats and forwards the mapped requests to the host processor using the existing financial network. The gateway system architecture includes support for standard **Internet** access routines which facilitate access to system administration information from a commercial **web** browser.

L12 ANSWER 9 OF 20 USPATFULL  
PI US 5918228 19990629  
TI Method and apparatus for enabling a **web server** to impersonate a user of a distributed file system to obtain secure access to supported **web** documents  
AB A method of enabling a **Web server** to impersonate a **Web client** to thereby obtain access to files stored in a distributed file system of a distributed computing environment. The distributed computing environment includes a security service for returning a credential to a user authenticated to access the distributed file system. In response to receipt of a transaction request from the **Web client**, a determination is made whether the transaction request has originated from a user authenticated to access the distributed file system. If so, the **Web server** is controlled to reuse the credential of the user across multiple file accesses in the distributed file system on behalf of the **Web client**.

L12 ANSWER 10 OF 20 USPATFULL  
PI US 5918010 19990629  
TI Collaborative **internet** data mining systems  
AB A collaborative **Internet** data mining system for facilitating a group effort from a plurality of guides to the **Internet**, by automatically processing the information provided by the guides and thereby create a branded or uniform look and feel to the **web** sites supported by the plurality of guides.

L12 ANSWER 11 OF 20 USPATFULL  
PI US 5905908 19990518  
TI Open network system for I/O operations with non-standard I/O devices utilizing extended protocol including device identifier and identifier for operation to be performed with device  
AB An open network system for supporting input/output (I/O) operations for non-standard I/O devices are disclosed. The system includes a **server** coupled to a plurality of I/O devices through an open network and an extended open system protocol that supports communication with devices that are not personal computers (PCs). These devices include magnetic stripe readers, check readers, smart card readers, credit card terminals, screen phone terminals, PIN pads, printers, and

the like. The extended open network protocol includes tags which identify device and input operations and attributes which identify the location, data exchange method, and data variable names for the retrieval, acquisition, and submission of data between the **server** and I/O devices. Preferably, the open network protocol is implemented in a Hyper Text Transport Protocol (HTTP). Preferably, the system includes a common gateway interface (CGI) at the **server** which converts protocol statements communicated between the **server** and I/O devices to application language statements for providing data to an application program coupled to the **server**. Most preferably, the application statements and protocol statements are constructed in integrated statements with an editor. The editor ensures that data identifiers in the application and protocol statements

are compatible. The integrated statements are then parsed by the editor to segregate the protocol statements from the application statements.

The protocol statements are **downloaded** in a file to a **client** program at an I/O device for processing. The application statements are stored in a file for use by the application. In this manner, generation of the files for **client** and application processing are automatically done without the user ensuring the correlation of the data fields in the two files.

L12 ANSWER 12 OF 20 USPATFULL

PI US 5898838 19990427

TI Editor for developing statements to support i/o operation on open network using segregator for segregating protocol statements from application statements upon verification of correspondence

AB An open network system for supporting input/output (I/O) operations for non-standard I/O devices are disclosed. The system includes a **server** coupled to a plurality of I/O devices through an open network and an extended open system protocol that supports communication

with devices that are not personal computers (PCs). These devices include magnetic stripe readers, check readers, smart card readers, credit card terminals, screen phone terminals, PIN pads, printers, and the like. The extended open network protocol includes tags which identify device and input operations and attributes which identify the location, data exchange method, and data variable names for the retrieval, acquisition, and submission of data between the **server** and I/O devices. Preferably, the open network protocol is implemented in a Hyper Text Transport Protocol (HTTP). Preferably, the system includes a common gateway interface (CGI) at the **server** which converts protocol statements communicated between the **server** and I/O devices to application language statements for providing data to an application program coupled to the **server**. Most preferably, the application statements and protocol statements are constructed in integrated statements with an editor. The editor ensures that data identifiers in the application and protocol statements

are compatible. The integrated statements are then parsed by the editor to segregate the protocol statements from the application statements.

The protocol statements are **downloaded** in a file to a **client** program at an I/O device for processing. The application statements are stored in a file for use by the application. In this manner, generation of the files for **client** and application processing are automatically done without the user ensuring the correlation of the data fields in the two files.

L12 ANSWER 13 OF 20 USPATFULL

PI US 5889863 19990330

TI System, method and article of manufacture for remote virtual point of sale processing utilizing a multichannel, extensible, flexible architecture

AB An architecture that provides a **server** that communicates

bidirectionally with a **client** over a first communication link, over which service requests flow to the **server** for [REDACTED] or more merchants and/or consumers is disclosed. Service requests are associated with a particular merchant based on storefront visited by a consumer or credentials presented by a merchant. Service requests result in merchant specific transactions that are transmitted to the gateway for further processing on existing host applications. By presenting the appropriate credentials, the merchant could utilize any other computer attached to the **Internet** utilizing a SSL or SET protocol to query the **server** remotely and obtain capture information, payment administration information, inventory control information, audit information and process customer satisfaction information.

L12 ANSWER 14 OF 20 USPATFULL  
PI US 5875296 19990223  
TI Distributed file system **web server** user authentication with cookies  
AB A method of authenticating a **Web client** to a **Web server** connectable to a distributed file system of a distributed computing environment. The distributed computing environment includes a security service for returning a credential to a user authenticated to access the distributed file system. In response to receipt by the **Web server** of a user id and password from the **Web client**, a login protocol is executed with the security service. If the user can be authenticated, a credential is stored in a database of credentials associated with authenticated users. The **Web server** then returns to the **Web client** a persistent **client** state object having a unique identifier therein. This object, sometimes referred to as a cookie, is then used to enable the **Web client** to browse **Web** documents in the distributed file system. In particular, when the **Web client** desires to make a subsequent request to the distributed file system, the persistent **client** state object including the identifier is used in lieu of the user's id and password, which makes the session much more secure. In this operation, the cookie identifier is used as a pointer into the credential storage table, and the credential is then retrieved and used to facilitate multiple file accesses from the distributed file system. At the same time, the **Web client** may obtain access to **Web server** (as opposed to distributed file system) documents via conventional user id and password in an HTTP request.

L12 ANSWER 15 OF 20 USPATFULL  
PI US 5869819 19990209  
TI **Internet**-based system and method for tracking objects bearing URL-encoded bar code symbols  
AB A novel **Web**-based package routing, tracking and delivering system and method that uses URL/ZIP-CODE encoded bar code symbols on parcels and packages. The system comprises one or more Routing, Tracking and Delivery (RTD) **Internet Server** Subsystems connected to the **Internet** infrastructure and updated at any instant of time with package tracking information. A Package **Log -In/Shipping** Subsystem is located at each shipping location and connected to the RTD **Internet Server** by way of the **Internet** infrastructure. A Package Routing Subsystem is located at a hub station and connected to the RTD **Internet Server** by way of the **Internet** infrastructure. A Portable Package Delivery Subsystem is carried by each package delivery person, and connected to the RTD **Internet Server** by

way of the Internet<sup>TM</sup> infrastructure communication link. At each remote hub station within the system, the URL/ZIP-Code encoded bar code symbol is automatically scanned by way of the Internet<sup>TM</sup> infrastructure; the encoded destination Zip Code is locally recovered and used to route the package at the hub station; and the locally recovered URL is used to access the RTD Internet<sup>TM</sup>

**Server** and update the location of the package within the system.

The Portable Package Delivery Subsystem is used to read the URL/ZIP-CODE encoded bar code symbol near the delivery destination in order to access the RTD Internet<sup>TM</sup> Server and display delivery information and the like to facilitate the delivery process.

L12 ANSWER 16 OF 20 USPATFULL

PI US 5850446 19981215

TI System, method and article of manufacture for virtual point of sale processing utilizing an extensible, flexible architecture  
AB Secure transmission of data is provided between a plurality of computer systems over a public communication system, such as the Internet<sup>TM</sup>. Secure transmission of data is provided from a customer computer system to a merchant computer system, and for the further secure transmission of payment information regarding a payment instrument from the merchant computer system to a payment gateway computer system. The payment gateway system evaluates the payment information and returns a level of authorization of credit via a secure transmission to the merchant which is communicated to the customer by the merchant. The merchant can then determine whether to accept the payment instrument tendered or deny credit and require another payment instrument. An architecture that provides support for additional message types that

are

not SET compliant is provided by a preferred embodiment of the invention. A **server** communicating bidirectionally with a gateway is disclosed. The **server** communicates to the gateway over a first communication link, over which all service requests are initiated by the **server**. The gateway uses a second communication link to send service signals to the **server**. In response to the service signals, the **server** initiates transactions to the gateway or presents information on an a display device.

L12 ANSWER 17 OF 20 USPATFULL

PI US 5812668 19980922

TI System, method and article of manufacture for verifying the operation of

a remote transaction clearance system utilizing a multichannel, extensible, flexible architecture

AB An architecture for verifying the operation of a remote transaction clearance system is disclosed. A merchant-controlled computer communicates with a test gateway computer over a communications channel.

The merchant-controlled computer transmits messages representing test transactions to the test gateway computer on the communications channel.

The test gateway computer responds with simulated transaction responses.

In another aspect of the invention, the transaction responses include configuration data that is used by the merchant-operated computer to configure itself to access a production gateway computer.

L12 ANSWER 18 OF 20 USPATFULL

PI US 5742845 19980421

TI System for extending present open network communication protocols to communicate with non-standard I/O devices directly coupled to an open network

AB An open network system for supporting input/output (I/O) operations for non-standard I/O devices are disclosed. The system includes a **server** coupled to a plurality of I/O devices through an open network and an extended open system protocol that supports communication with devices that are not personal computers (PCs). These devices include magnetic stripe readers, check readers, smart card readers, credit card terminals, screen phone terminals, PIN pads, printers, and the like. The extended open network protocol includes tags which identify device and input operations and attributes which identify the location, data exchange method, and data variable names for the retrieval, acquisition, and submission of data between the **server** and I/O devices. Preferably, the open network protocol is implemented in a Hyper Text Transport Protocol (HTTP). Preferably, the system includes a common gateway interface (CGI) at the **server** which converts protocol statements communicated between the **server** and I/O devices to application language statements for providing data to an application program coupled to the **server**. Most preferably, the application statements and protocol statements are constructed in integrated statements with an editor. The editor ensures that data identifiers in the application and protocol statements are compatible. The integrated statements are then parsed by the editor to segregate the protocol statements from the application statements. The protocol statements are **downloaded** in a file to a **client** program at an I/O device for processing. The application statements are stored in a file for use by the application. In this manner, generation of the files for **client** and application processing are automatically done without the user ensuring the correlation of the data fields in the two files.

L12 ANSWER 19 OF 20 USPATFULL  
PI US 5732216 19980324  
TI Audio message exchange system  
AB An audio program and message distribution system in which a host system organizes and transmits program segments to **client** subscriber locations. The host organizes the program segments by subject matter and creates scheduled programming in accordance with preferences associated with each subscriber. Program segments are associated with descriptive subject matter segments, and the subject matter segments may be used to generate both text and audio cataloging presentations to enable the user to more easily identify and select desirable programming. A playback unit at the subscriber location reproduces the program segments received from the host and includes mechanisms for interactively navigating among the program segments. A usage **log** is compiled to record the subscriber's use of the provided program materials, to return data to the host for billing, to adaptively modify the subscriber's preferences based on actual usage, and to send subscriber-generated comments and requests to the host for processing. Voice input and control mechanisms included in the player allow the user to perform hands-free navigation of the program materials and to dictate comments and messages which are returned to the host for retransmission to other subscribers.

L12 ANSWER 20 OF 20 USPATFULL  
PI US 5721827 19980224  
TI System for electrically distributing personalized information  
AB An audio program and message distribution system in which a host system organizes and transmits program segments to **client** subscriber locations. The host organizes the program segments by subject matter and creates scheduled programming in accordance with preferences associated

with each subscriber. Program segments are associated with descriptive subject matter segments, and the subject matter segments may be used to generate both text and audio cataloging presentations to enable the

user to more easily identify and select desirable programming. A playback unit at the subscriber location reproduces the program segments received

from the host and includes mechanisms for interactively navigating among

the program segments. A usage log is compiled to record the subscriber's use of the provided program materials, to return data to the host for billing, to adaptively modify the subscriber's preferences based on actual usage, and to send subscriber-generated comments and requests to the host for processing. Voice input and control mechanisms included in the player allow the user to perform hands-free navigation of the program materials and to dictate comments and messages which are returned to the host for retransmission to other subscribers. The program segments sent to each subscriber may include advertising materials which the user can selectively play to obtain credits against the subscriber fee. Parallel audio and text transcript files for at least selected programming enable subject matter searching and synchronization of the audio and text files. Speech synthesis may be used to convert transcript files into audio format. Image files may

also be transmitted from the server for synchronized playback with the audio programming.

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